Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L60	1	"324"/\$ and strip with (die dice) with ((locat\$4 position) and ((database data adj base) (camera vision)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 15:36
L59	35	"324"/\$ and strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 15:36
L48	10	"700"/\$ and strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 15:33
L57	5	strip with (die dice) same ((locat\$4 position) and ((database data adj base) and (camera vision)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:37
L56	9	strip with (die dice) with ((locat\$4 position) and ((database data adj base) (camera vision)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:37
L47	2157	strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:06
L55	141	"257"/\$ and strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:02
L54	24	"235"/\$ and strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:02
L53	278	"156"/\$ and strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:02
L52	79	"438"/\$ and strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:02

L51	0	"716"/\$ and strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:02
L50	0	"714"/\$ and strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:02
L49	3	"702"/\$ and strip with (die dice) with ((locat\$4 position) (database data adj base) (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:02
L45	5	strip with (die dice) same ((locat\$4 position) and (database data adj base) and (camera vision))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 14:01
L44	9	strip with (die dice) same ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:52
L43	20	strip same (die dice) same ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:39
L42	5	strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:37
L41	4	(camera vision) and strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:36
L40	3	"438"/\$ and (camera vision) and strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:35
L39	2	"257"/\$ and (camera vision) and strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:34

L38	0	"235"/\$ and (camera vision) and strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:34
L37	3	"156"/\$ and (camera vision) and strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:34
L36	0	"716"/\$ and (camera vision) and strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:34
L35	0	"702"/\$ and (camera vision) and strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:34
L34	. 1	"700"/\$ and (camera vision) and strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:34
L33	, O 1	"714"/\$ and (camera vision) and strip with (die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:34
L28	2	"714"/\$ and (camera vision) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:33
L32	5	"235"/\$ and (camera vision) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:32
L31	4	"257"/\$ and (camera vision) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:32
L30	6	"156"/\$ and (camera vision) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR .	ON	2005/11/03 13:32

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L29	3	"716"/\$ and (camera vision) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR ,	ON	2005/11/03 13:32
L27	5	"702"/\$ and (camera vision) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:31
L26	4	"700"/\$ and (camera vision) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:31
L25	16	"438"/\$ and (camera vision) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR .	ON	2005/11/03 13:31
L24	3	"438"/\$ and (camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:31
L23	2	"257"/\$ and (camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:31
L21	3	"156"/\$ and (camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:31
L22	0	"235"/\$ and (camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:30
L20	0	"716"/\$ and (camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:30
L19	. 0	"714"/\$ and (camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:30

L18	0	"702"/\$ and (camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:30
L17	1	"700"/\$ and (camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:29
L16	19	(camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:28
L15	15	(camera vision) and wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base)) and (@ad<"20010227" @rlad<"20010227")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:28
L14	4	wafer with strip with (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:17
L13	0	wafer with strip with (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base)) and (@ad<"20010227" @rlad<"20010227")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:17
L11	0	(camera vision) and wafer with strip with (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base)) and (@ad<"20010227" @rlad<"20010227")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:17
L12	4	(camera vision) and wafer with strip with (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:16
L10	. 51	(camera vision) and wafer with (strip die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base)) and (@ad<"20010227" @rlad<"20010227")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:15

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L9	53	(camera vision) and wafer same (strip die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base)) and (@ad<"20010227" @rlad<"20010227")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:13
L8	138	wafer same (strip die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base)) and (@ad<"20010227" - @rlad<"20010227")	US-PGPUB; USPAT; EPO; JPO; DERWENT; -IBM_TDB	OR	ON	2005/11/03 13:12
L7	17	wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base)) and (@ad<"20010227" @rlad<"20010227")	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 13:03
L6	21	wafer same strip same (die dice) and (strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 12:50
L5	34	wafer same strip same (die dice) and (wafer strip die dice) with ((locat\$4 position) and (database data adj base))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 12:43
L4	56	wafer same strip same die and (locat\$4 position) and (database data adj base)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 12:23
L3	605	wafer and strip and die and (locat\$4 position) and (database data adj base)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/11/03 12:21

10086051_QUAL1

10086051_CLSTITLES1

Titles of Most Frequently Occurring Classifications of Patents Returned From A Search of 10086051 on November 03, 2005

```
(1 OR, 5 XR)
257 : ACTIVE SOLID-STATE DEVICES
  257/676
         Class
         257/666
257/676
                           LEAD FRAME
                           .With structure for mounting semiconductor chip
to lead frame (e.g., configuration of die bonding flag,
                               absence of a die bonding flag, recess for LED)
                    (0 \text{ OR}, 6 \text{ XR})
  257/E23.179
                   257 : ACTIVE SOLID-STATE DEVICES
         Class
         257/E23.176
                           ...For flat cards, e.g., credit cards (EPO)
.Marks applied to semiconductor devices or
         257/E23.179
                              parts, e.g., registration marks, test patterns, alignment structures, wafer maps (EPO)
5
    29/827
                     (2 OR, 3 XR)
                   029: METAL WORKING
         Class
         29/592
                           METHOD OF MECHANICAL MANUFACTURE
         29/592.1
                           .Electrical device making
         29/825
                           .. Conductor or circuit manufacturing
                           ...Beam lead frame or beam lead device
         29/827
                   (2 OR, 3 XR)
257 : ACTIVE SOLID-STATE DEVICES
  257/666
         Class
         257/666
                           LEAD FRAME
                    (2 \text{ OR}, 3 \text{ XR})
                   257 : ACTIVE SOLID-STATE DEVICES
         Class
         257/734
                           COMBINED WITH ELECTRICAL CONTACT OR LEAD
         257/778
                           .Flip chip
                   (0 OR, 5 XR)
257 : ACTIVE SOLID-STATE DEVICES
  257/E23.037
         Class
                           PACKAGING, INTERCONNECTS, AND MARKINGS FOR SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
         257/E23.001
                           Arrangements for conducting electric current to or from solid-state body in operation, e.g., leads,
         257/E23.01
                                  terminal arrangements (EPO)
                           .. Consisting of soldered or bonded
         257/E23.023
                                 constructions (EPO)
                           ...Lead frames or other flat leads (EPO) ....Characterized by die pad (EPO)
         257/E23.031
         257/E23.037
   257/48
                     (4 OR, 0 XR)
                   257 : ACTIVE SOLID-STATE DEVICES
         Class
         257/48
                           TEST OR CALIBRATION STRUCTURE
                    (4 OR, 0 XR)
   382/145
                   382 : IMAGE ANALYSIS APPLICATIONS
         Class
         382/100
         382/141
                           .Manufacturing or product inspection
         382/145
                           .. Inspection of semiconductor device or printed
                              circuit board
  702/187
                     (0 \text{ OR}, 4 \text{ XR})
         class
                   702 : DATA PROCESSING: MEASURING, CALIBRATING, OR
                             TESTING
         702/127
                          MEASUREMENT SYSTEM
         702/187
                           .History logging or time stamping
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10086051_CLSTITLES1
                     (0 OR, 3 XR)
3 257/787
                   257 : ACTIVE SOLID-STATE DEVICES
         Class
         257/787
                           ENCAPSULATED
                     (0 \text{ OR}, 3 \text{ XR})
  257/E23.004
                   257 : ACTIVE SOLID-STATE DEVICES
          Class
         257/E23.001
                           PACKAGING, INTERCONNECTS, AND MARKINGS FOR
                                 SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
                           .Mountings, e.g., nondetachable insulating
         257/E23.003
                           substrates (ÉPO)
...Characterized by shape (EPO)
         257/E23.004
   257/E23.043
                    (0 \text{ OR}, 3 \text{ XR})
                   257 : ACTIVE SOLID-STATE DEVICES
         257/E23.001
                           PACKAGING, INTERCONNECTS, AND MARKINGS FOR
                                   SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
                           Arrangements for conducting electric current to or from solid-state body in operation, e.g., leads, terminal arrangements (EPO)

..Consisting of soldered or bonded
         257/E23.01
         257/E23.023
                                 constructions (EPO)
                           ...Lead frames or other flat leads (EPO)
         257/E23.031
                           ....Geometry of lead frame (EPO)
         257/E23.043
   257/E23.067
                    (0 \text{ OR}, 3 \text{ XR})
                   257:
                           ACTIVE SOLID-STATE DEVICES
         Class
                           PACKAGING, INTERCONNECTS, AND MARKINGS FOR SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
         257/E23.001
                           Arrangements for conducting electric current to or from solid-state body in operation, e.g., leads,
         257/E23.01
                                  terminal arrangements (EPO)
                           .. Consisting of soldered or bonded
         257/E23.023
                                 constructions (EPO)
                           ...Leads, i.e., metallizations or lead frames on insulating substrates, e.g., chip carriers (EPO)
         257/E23.06
                           ....Via connections through substrates, e.g., pins going through substrate, coaxial cables (EPO)
         257/E23.067
  438/123
                     (0 \text{ OR}, 3 \text{ XR})
                   438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
         Class
         438/106
                           PACKAGING (E.G., WITH MOUNTING, ENCAPSULATING,
                                 ETC.) OR TREATMENT OF PACKAGED SEMICONDUCTOR
         438/121
                           .Metallic housing or support
         438/123
                           ..Lead frame
3
   438/14
                     (0 \text{ OR}, 3 \text{ XR})
         Class
                   438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
         438/14
                          WITH MEASURING OR TESTING
  438/18
                     (1 OR, 2 XR)
         Class
                   438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
         438/14
                          WITH MEASURING OR TESTING
         438/17
                           .Electrical characteristic sensed
         438/18
                           ..Utilizing integral test element
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2 29/566.3 (1 OR, 1 XR)
Class 029: METAL WORKING
29/33R PLURAL DIVERSE MANUFACTURING APPARATUS
INCLUDING MEANS FOR METAL SHAPING OR ASSEMBLING
29/566 .Including composite tool
Page 2

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10086051_CLSTITLES1
                         .. Including severing means
         29/566.1
         29/566.3
                         ...To trim electric component
2
    29/740
                   (0 \text{ OR}, 2 \text{ XR})
                  029 :
                          METAL WORKING
         Class
         29/700
                         MEANS TO ASSEMBLE OR DISASSEMBLE
         29/729
                         .Means to assemble electrical device
                         ..Means to fasten electrical component to wiring board, base, or substrate
         29/739
         29/740
                         ...Chip component
2
    29/840
                   (1 \text{ OR}, 1 \text{ XR})
                  029: METAL WORKING
         Class
         29/592
                         METHOD OF MECHANICAL MANUFACTURE
         29/592.1
                         .Electrical device making
         29/825
                         .. Conductor or circuit manufacturing
                         ...On flat or curved insulated base, e.g.,
         29/829
                               printed circuit, etc.
                         ....Assembling to base an electrical component, e.g., capacitor, etc.
         29/832
                         .....By metal fusion
         29/840
2
    29/841
                   (1 OR, 1 XR)
                  029 :
                         METAL WORKING
         Class
         29/592
                         METHOD OF MECHANICAL MANUFACTURE
         29/592.1
                         .Electrical device making
         29/825
                         .. Conductor or circuit manufacturing
                         ...On flat or curved insulated base, e.g., printed circuit, etc.
         29/829
         29/832
                           . Assembling to base an electrical component,
                             e.g., capacitor, etc.
         29/841
                         .....With encapsulating, e.g., potting, etc.
  156/64
                   (1 \text{ OR}, 1 \text{ XR})
         Class
                  156 : ADHESIVE BONDING AND MISCELLANEOUS CHEMICAL
                           MANUFACTURE
         156/1
                         METHODS
         156/60
                         .Surface bonding and/or assembly therefor
         156/64
                         .. With measuring, testing, or inspecting
2
   174/52.2
                   (1 \text{ OR}, 1 \text{ XR})
         Class
                         ELECTRICITY: CONDUCTORS AND INSULATORS
         174/50
                         BOXES AND HOUSINGS
         174/52.1
                         .With electric device or mounting means
                             therefor
         174/52.2
                         .. Potted or encapsulated
                   (0 OR, 2 XR)
  257/673
                  257 : ACTIVE SOLID-STATE DEVICES
         Class
         257/666
                         LEAD FRAME
         257/673
                         .With bumps on ends of lead fingers to connect
                            to semiconductor
  257/737
                   (0 \text{ OR}, 2 \text{ XR})
                  257 : ACTIVE SOLID-STATE DEVICES
         Class
         257/734
                         COMBINED WITH ELECTRICAL CONTACT OR LEAD
        257/737
                         .Bump leads
   257/758
                   (1 \text{ OR}, 1 \text{ XR})
                  257 : ACTIVE SOLID-STATE DEVICES
        Class
        257/734
257/741
                         COMBINED WITH ELECTRICAL CONTACT OR LEAD
                         .Of specified material other than unalloyed
                              aluminum
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10086051_CLSTITLES1

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257/750
                               ..Layered
             257/758
                                ...Multiple metal levels on semiconductor,
                                   separated by insulating layer (e.g., multiple level
                                   metallization for integrated circuit)
                        (0 OR, 2 XR)
257 : ACTIVE SOLID-STATE DEVICES
ADAPTIS ADAPT
  2 257/E21.505
                       257:
             Class
                               PROCESSES OR APPARATUS ADAPTED FOR MANUFACTURE
OR TREATMENT OF SEMICONDUCTOR OR SOLID-STATE DEVICES
             257/E21.001
OR OF
                                       PARTS THEREOF (EPO)
                               .Manufacture or treatment of semiconductor
             257/E21.002
                                       device (EPO)
                               ..Device having at least one potential-jump barrier or surface barrier, e.g., PN junction,
             257/E21.04
depletion
                               layer, carrier concentration layer (EPO)
...Assembling semiconductor devices, e.g.,
packaging , including mounting, encapsulating, or
             257/E21.499
treatment
                                    of packaged semiconductor (EPO)
             257/E21.505
                               ....Insulative mounting semiconductor device on
                                   support (EPO)
  2 257/E21.525
                        (0 \text{ OR}, 2 \text{ XR})
                       257 : ACTIVE SOLID-STATE DEVICES
             Class
                               without use of alloying or soldering process, e.g., pressure contacts (EPO)
             257/E21.515
             257/E21.521
                               .Testing or measuring during manufacture or
                                    treatment or reliability measurement, i.e., testing of parts followed by no processing which modifies parts as
                                    such (EPO)
                               ..Procedures, i.e., sequence of activities consisting of plurality of measurement and correction, marking or sorting steps (EPO)
             257/E21.525
     257/E23.038
                        (0 OR, 2 XR)
                       257 :
                               ACTIVE SOLID-STATE DEVICES
             Class
             257/E23.001
                               PACKAGING, INTERCONNECTS, AND MARKINGS FOR
                                          SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
             257/E23.01
                               .Arrangements for conducting electric current
                                        to or from solid-state body in operation, e.g.,
leads,
                               terminal arrangements (EPO) ...Consisting of soldered or bonded
             257/E23.023
                                       constructions (EPO)
                               ...Lead frames or other flat leads (EPO) ....Characterized by die pad (EPO)
             257/E23.031
             257/E23.037
             257/E23.038
                               .....Insulative substrate being used as die
                                   pad, e.g., ceramic, plastic (EPO)
  2 257/E23.046
                        (0 \text{ OR}, 2 \text{ XR})
                       257 :
                               ACTIVE SOLID-STATE DEVICES
                               PACKAGING, INTERCONNECTS, AND MARKINGS FOR SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
             257/E23.001
             257/E23.01
                               .Arrangements for conducting electric current
                                        to or from solid-state body in operation, e.g.,
leads.
                               terminal arrangements (EPO) ...Consisting of soldered or bonded
             257/E23.023
                               constructions (EPO)
...Lead frames or other flat leads (EPO)
            257/E23.031
                                                  Page 4
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                            ....Geometry of lead frame (EPO)
          257/E23.043
          257/E23.046
                            .....Cross-section geometry (EPO)
   257/E23.068
                     (0 \text{ OR}, 2 \text{ XR})
                    257 :
                            ACTIVE SOLID-STATE DEVICES
          Class
          257/E23.001
                            PACKAGING, INTERCONNECTS, AND MARKINGS FOR
                                    SEMICONDUCTOR OR OTHER SOLID-STATE DEVICES (EPO)
                            Arrangements for conducting electric current to or from solid-state body in operation, e.g., leads, terminal arrangements (EPO)

..Consisting of soldered or bonded
          257/E23.01
          257/E23.023
                            constructions (EPO)
...Leads, i.e., metallizations or lead frames
          257/E23.06
                            on insulating substrates, e.g., chip carriers (EPO)
....Additional leads joined to metallizations
          257/E23.068
                               on insulating substrate, e.g., pins, bumps, wires, flat
                               leads (EPO)
   257/E23.125
                     (0 \text{ OR}, 2 \text{ XR})
                    257 : ACTIVE SOLID-STATE DEVICES
          Class
          257/E23.113
                            ....Ceramic materials or glass (EPO)
                            Encapsulations, e.g., encapsulating layers, coatings, e.g., for protection (EPO)

..Characterized by arrangement or shape (EPO)
          257/E23.116
          257/E23.123
                            ...Device being completely enclosed (EPO) ....Substrate forming part of encapsulation
          257/E23.124
          257/E23.125
                               (EPO)
                     (0 OR, 2 XR)
                    324: ELECTRICITY: MEASURING AND TESTING
          324/73.1
                           PLURAL, AUTOMATICALLY SEQUENTIAL TESTS
                    (1 OR, 1 XR)
324 : ELECTRICITY: MEASURING AND TESTING
          Class
          324/500
                           FAULT DETECTING IN ELECTRIC CIRCUITS AND OF
                           ELECTRIC COMPONENTS
.Of individual circuit component or element
          324/537
          324/765
                            .. Test of semiconductor device
  361/764
                     (0 \text{ OR}, 2 \text{ XR})
                    361 : ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES
         Class
                           HOUSING OR MOUNTING ASSEMBLIES WITH DIVERSE ELECTRICAL COMPONENTS
          361/600
                           .For electronic systems and devices ..Printed circuit board
          361/679
          361/748
                           ... Connection of components to board
          361/760
          361/761
                           ....Component within printed circuit board
          361/764
                           .....Integrated circuit
                    (0 OR, 2 XR)
438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
2 438/106
         Class
          438/106
                           PACKAGING (E.G., WITH MOUNTING, ENCAPSULATING,
                               ETC.) OR TREATMENT OF PACKAGED SEMICONDUCTOR
2
   438/613
                     (0 OR, 2 XR)
                    438 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
         Class
         438/584
                           COATING WITH ELECTRICALLY OR THERMALLY
                                   CONDUCTIVE MATERIAL
         438/597
                           .To form ohmic contact to semiconductive
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	438/612 438/613	materialForming solder contact or bonding padBump electrode
2	438/622 Class 4	(0 OR, 2 XR) 38 : SEMICONDUCTOR DEVICE MANUFACTURING: PROCESS
	438/584	COATING WITH ELECTRICALLY OR THERMALLY CONDUCTIVE MATERIAL
	438/597	
	438/618	Contacting multiple semiconductive regions (i.e., interconnects)
	438/622	Multiple metal levels, separated by insulating layer (i.e., multiple level metallization)
2	700/121	(1 OR, 1 XR)
	Class 7	00 : DATA PROCESSING: GENERIC CONTROL SYSTEMS OR SPECIFIC APPLICATIONS
	700/90 700/95	SPECIFIC APPLICATION, APPARATUS OR PROCESS
	700/93	Particular manufactured product or operation
	700/121	Integrated circuit production or semiconductor fabrication